

Crescent Lake National Wildlife Refuge:
Report from 2015-2016 Funded Chronic Wasting Disease Projects

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1. We will monitor for CWD prevalence during the 2015 firearm season in the Nebraska Panhandle by collecting lymph nodes at the firearm season check stations at Crescent Lake NWR, Alliance, Bridgeport, and Lewellen. We will attempt to collect 25-30 samples at Crescent Lake NWR during the season, 20 samples each at Bridgeport, and Lewellen during opening weekend and a minimum of 30 at Alliance during the season. Elisa testing will be done at Fort Collins, CO (\$17 per the current USFWS Contract).

2. We will monitor deer at Crescent Lake via daily deer observations, spotlight and aerial surveys (Tables 1 and 2, Figures 3-5). Deer in north Garden County will be monitored via aerial and ground surveys. In early October, Crescent Lake staff will conduct additional monitoring via three spotlight survey routes on the Refuge. In all surveys, researchers will record deer numbers and population demographics. Attempts will be made to cull and test deer suspected of having CWD. Deer considered to be potentially affected by CWD will be those individuals exhibiting symptoms (e.g., emaciation and/or aberrant behavior) consistent with the onset of CWD.

Locations age/species structure of CWD tested deer 2015 Nebraska.

CWD Prevalence

We collected lymph nodes from 101 deer during the 2015 Nebraska firearms season. The distribution to check stations, species and age class are in the tables 1-4. Of the 101 5 were CWD detected. None from Crescent Lake NWR

Table 1	Crescent Lake				Alliance			
	Mule Deer		White_tailed		Mule Deer		White_tailed	
	Bucks	Does	Bucks	Does	Bucks	Does	Bucks	Does
0.5					1			
1.5	2	1	3	2	10		4	2
2.5	4		4	1	3	2	3	
3.5	2		7		4			
4.5						2		
5.5			1					
6.5	1							
7.5						2		
Unknown								
Sub-Total	9	1	15	3	18	6	7	2
Total				28				
Detected				0				2

Table 2	Bridgeport				Lewellen			
	Mule Deer		White_tailed		Mule Deer		White_tailed	
	Bucks	Does	Bucks	Does	Bucks	Does	Bucks	Does
0.5						1	1	1
1.5					2		3	
2.5	5				3	2	2	
3.5	9				2			
4.5	4					1		1
5.5	1						1	
6.5								
Unknown	1							
Sub-Total	20				7	4	7	2
Total				20				20
Detected				1				2

Table 4	All				CWD Detected			
	Mule Deer		White_tailed		Mule Deer		White_tailed	
	Bucks	Does	Bucks	Does	Bucks	Does	Bucks	Does
Age								
0.5	1	1	1	1				
1.5	14	1	10	4			1	
2.5	15	4	9	1			1	
3.5	17	0	7	0	2			
4.5	4	3	0	1	1			
5.5	1	0	2	0				
6.5	1	0	0	0				
7.5	0	2	0	0				
Unknown	1	0	0	0				
Sub-Total	54	11	29	7	3		2	0
Total				101				5
								4.95%

Deer Observations

In 2014, 442 groups of Deer were observed during field activities totaling 2292 individuals (Table 5). No behavioral/Physical signs of CWD were observed in 2015 and no culls from lymph nodes were made.

We also conducted 3s pot light surveys as part of our population monitoring. This years survey included 180 individuals (Table 6). Again no behavioral/Physical signs of CWD were observed.

Table 5: 2014 Deer Health Observations					
	Bucks	Does	Fawns	Totals	Events/Groups
Mule deer	212	966	680	1858	412
White-tailed Deer	49	213	172	434	175
Total				2292	587

Table 6. Herd size and reproductive data for white-tailed and mule deer at Crescent Lake NWR							
				Doe/Fawn Ratio		Twinning Percentage	
	White-Tail	Mule Deer	Total	White-Tail	Mule Deer	White-Tail	Mule Deer
2015 SPL	102	76	180	1.18	1.60	11.75	13.64
2014 SPL	54	86	140	1.86	1.44	18.75	33.33
2013 SPL	49	27	76	2.54	2.00	23.81	14.92
2012 SPL	78	71	149	4.29	8.50	0	20.0
2011 SPL	65	57	123	2.1	3.5	13.0	0.00
2010 SPL	72	43	117	2.0	3.0	15.0	20.00
2009 SPL	105	103	208	1.69	6.0	2.86	12.50
2015 DDO				1.21	1.44	31.86	25.73
2014 DDO				1.66	1.48	20.79	28.57
2013 DDO				2.83	6.6	15.38	2.25
2012 DDO				3.10	10.42	26.67	12.50
2011 DDO				2.49	3.41	11.1	2.94
2010 DDO				3.22	6.30	6.06	4.87
2009 DDO				2.83	1.92	7.7	14.09

SPL spotlight Surveys, DDO Daily deer observations